Abstract

I/O resources are allocated to one or more hosts in a network cluster. Each host stores a cluster resource table (CRT) that identifies the configuration and allocation of I/O resources within its cluster. Each host includes an I/O resource management agent (RMA) within the operating system. A host's RMA obtains a list of all hosts and I/O units and their network addresses from the fabric services. The RMA then queries each host to obtain at least a portion of the CRTs of each of the host's in the cluster. The RMA replaces its local CRT with the most current version of the CRT (e.g., based on a time and date stamp or version number of each CRT). The host's RMA then queries each I/O unit to identify the I/O controllers and their controller number in the cluster. The RMA then queries each I/O controller in the cluster to identify the I/O devices in the cluster. The RMA then updates its CRT based on this information. The RMA can provide the updated CRT to each of the hosts in the cluster.